



PCT09

RAW SEQUENCE LISTING

DATE: 02/27/2002

PATENT APPLICATION: US/09/446,628

TIME: 13:28:32

Input Set : A:\164334.app

Output Set: N:\CRF3\02272002\I446628.raw

```

3 <110> APPLICANT: POLYMERPOULOUS, MIHAEL
4     LAVEDAN, CHRISTIAN
5     LEROY, ELISABETH
6     NUSSBAUM ROBERT
7     JOHNSON, WILLIAM
8     DUVOISIN, ROGER
10 <120> TITLE OF INVENTION: CLONING OF A GENE MUTATION FOR PARKINSON'S DISEASE
12 <130> FILE REFERENCE: 31978-164334
14 <140> CURRENT APPLICATION NUMBER: 09/446,628
15 <141> CURRENT FILING DATE: 1998-06-25
17 <160> NUMBER OF SEQ ID NOS: 25
19 <170> SOFTWARE: PatentIn Ver. 2.1
21 <210> SEQ ID NO: 1
22 <211> LENGTH: 216
23 <212> TYPE: DNA
24 <213> ORGANISM: Homo sapiens
26 <220> FEATURE:
27 <221> NAME/KEY: modified_base
28 <222> LOCATION: (133)
29 <223> OTHER INFORMATION: a, t, c, g, other or unknown
31 <220> FEATURE:
32 <221> NAME/KEY: CDS
33 <222> LOCATION: (56)..(97)
35 <400> SEQUENCE: 1
36 gctaatcagc aatttaaggc tagcttgaga cttatgtctt gaatttgttt ttgta ggc   58
37                                     Gly
38                                     1
40 tcc aaa acc aag gag gga gtg gtg cat ggt gtg aca aca ggtaagctcc   107
41 Ser Lys Thr Lys Glu Gly Val Val His Gly Val Thr Thr
42         5                               10
W--> 44 attgtgctta tatcaaagat gatantntaa gtatctagtg attagtgtgg cccagtatca 167
46 agattccctat gaaattgtaa aacaatcaact gagcatctaa gaacatatc   216
49 <210> SEQ ID NO: 2
50 <211> LENGTH: 22
51 <212> TYPE: DNA
52 <213> ORGANISM: Artificial Sequence
54 <220> FEATURE:
55 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer
57 <400> SEQUENCE: 2
58 gctaatcagc aatttaggct ag   22
61 <210> SEQ ID NO: 3
62 <211> LENGTH: 21
63 <212> TYPE: DNA

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64 <213> ORGANISM: Artificial Sequence

66 <220> FEATURE:

67 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer

69 <400> SEQUENCE: 3

70 ctatacaaga atctacgagt c

21

73 <210> SEQ ID NO: 4

74 <211> LENGTH: 393

75 <212> TYPE: PRT

76 <213> ORGANISM: Homo sapiens

78 <400> SEQUENCE: 4

79 Met Glu Thr Ala Ser Pro Val Ala Leu Pro His Glu Met Glu Thr Leu

80 1 5 10 15

82 Tyr Ser Gly Leu Tyr Leu Glu Ser Glu Arg Leu Tyr Ser Ala Leu Ala

83 20 25 30

85 Leu Tyr Ser Gly Leu Gly Leu Tyr Val Ala Leu Val Ala Leu Ala Leu

86 35 40 45

88 Ala Ala Leu Ala Ala Leu Ala Gly Leu Leu Tyr Ser Thr His Arg Leu

89 50 55 60

91 Tyr Ser Gly Leu Asn Gly Leu Tyr Val Ala Leu Ala Leu Ala Gly Leu

92 65 70 75 80

94 Ala Leu Ala Ala Leu Ala Gly Leu Tyr Leu Tyr Ser Thr His Arg Leu

95 85 90 95

97 Tyr Ser Gly Leu Gly Leu Tyr Val Ala Leu Leu Glu Thr Tyr Arg Val

98 100 105 110

100 Ala Leu Gly Leu Tyr Ser Glu Arg Leu Tyr Ser Thr His Arg Leu Tyr

101 115 120 125

103 Ser Gly Leu Gly Leu Tyr Val Ala Leu Val Ala Leu His Ile Ser Gly

104 130 135 140

106 Leu Tyr Val Ala Leu Ala Leu Ala Thr His Arg Val Ala Leu Ala Leu

107 145 150 155 160

109 Ala Gly Leu Leu Tyr Ser Thr His Arg Leu Tyr Ser Gly Leu Gly Leu

110 165 170 175

112 Asn Val Ala Leu Thr His Arg Ala Ser Asn Val Ala Leu Gly Leu Tyr

113 180 185 190

115 Gly Leu Tyr Ala Leu Ala Val Ala Leu Val Ala Leu Thr His Arg Gly

116 195 200 205

118 Leu Tyr Val Ala Leu Thr His Arg Ala Leu Ala Val Ala Leu Ala Leu

119 210 215 220

121 Ala Gly Leu Asn Leu Tyr Ser Thr His Arg Val Ala Leu Gly Leu Gly

122 225 230 235 240

124 Leu Tyr Ala Leu Ala Gly Leu Tyr Ser Glu Arg Ile Leu Glu Ala Leu

125 245 250 255

127 Ala Ala Leu Ala Ala Leu Ala Thr His Arg Gly Leu Tyr Pro His Glu

128 260 265 270

130 Val Ala Leu Leu Tyr Ser Leu Tyr Ser Ala Ser Pro Gly Leu Asn Leu

131 275 280 285

133 Glu Gly Leu Tyr Leu Tyr Ser Ala Ser Asn Gly Leu Gly Leu Gly Leu

134 290 295 300

136 Tyr Ala Leu Ala Pro Arg Gly Leu Asn Gly Leu Gly Leu Tyr Ile Leu

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```

137 305          310          315          320
139 Glu Leu Glu Gly Leu Ala Ser Pro Met Glu Thr Pro Arg Val Ala Leu
140          325          330          335
142 Ala Ser Pro Pro Arg Ala Ser Pro Ala Ser Asn Gly Leu Ala Leu Ala
143          340          345          350
145 Thr Tyr Arg Gly Leu Met Glu Thr Pro Arg Ser Glu Arg Gly Leu Gly
146          355          360          365
148 Leu Gly Leu Tyr Thr Tyr Arg Gly Leu Asn Ala Ser Pro Thr Tyr Arg
149          370          375          380
151 Gly Leu Pro Arg Gly Leu Ala Leu Ala
152 385          390
155 0210 - SEQ ID NO: 5
156 0211 - LENGTH: 394
157 0212 - TYPE: PRT
158 0213 - ORGANISM: Rattus norvegicus
160 0400 - SEQUENCE: 5
161 Met Glu Thr Ala Ser Pro Val Ala Leu Pro His Glu Met Glu Thr Leu
162 1 5 10 15
164 Tyr Ser Gly Leu Tyr Leu Glu Ser Glu Arg Leu Tyr Ser Ala Leu Ala
165 20 25 30
167 Leu Tyr Ser Gly Leu Gly Leu Tyr Val Ala Leu Val Ala Leu Ala Leu
168 35 40 45
170 Ala Ala Leu Ala Ala Leu Ala Gly Leu Leu Tyr Ser Thr His Arg Leu
171 50 55 60
173 Tyr Ser Gly Leu Asn Gly Leu Tyr Val Ala Leu Ala Leu Ala Gly Leu
174 65 70 75 80
176 Ala Leu Ala Ala Leu Ala Gly Leu Tyr Leu Tyr Ser Thr His Arg Leu
177 85 90 95
179 Tyr Ser Gly Leu Gly Leu Tyr Val Ala Leu Leu Glu Thr Tyr Arg Val
180 100 105 110
182 Ala Leu Gly Leu Tyr Ser Glu Arg Leu Tyr Ser Thr His Arg Leu Tyr
183 115 120 125
185 Ser Gly Leu Gly Leu Tyr Val Ala Leu Val Ala Leu His Ile Ser Gly
186 130 135 140
188 Leu Tyr Val Ala Leu Thr His Arg Thr His Arg Val Ala Leu Ala Leu
189 145 150 155 160
191 Ala Gly Leu Leu Tyr Ser Thr His Arg Leu Tyr Ser Gly Leu Gly Leu
192 165 170 175
194 Asn Val Ala Leu Thr His Arg Ala Ser Asn Val Ala Leu Gly Leu Tyr
195 180 185 190
197 Gly Leu Tyr Ala Leu Ala Val Ala Leu Val Ala Leu Thr His Arg Gly
198 195 200 205
200 Leu Tyr Val Ala Leu Thr His Arg Ala Leu Ala Val Ala Leu Ala Leu
201 210 215 220
203 Ala Gly Leu Asn Leu Tyr Ser Thr His Arg Val Ala Leu Gly Leu Gly
204 225 230 235 240
206 Leu Tyr Ala Leu Ala Gly Leu Tyr Ala Ser Asn Ile Leu Glu Ala Leu
207 245 250 255
209 Ala Ala Leu Ala Ala Leu Ala Thr His Arg Gly Leu Tyr Pro His Glu

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```

210          260          265          270
212 Val Ala Leu Leu Tyr Ser Leu Tyr Ser Ala Ser Pro Gly Leu Asn Met
213          275          280          285
215 Glu Thr Gly Leu Tyr Leu Tyr Ser Gly Leu Tyr Gly Leu Gly Leu Gly
216          290          295          300
218 Leu Tyr Thr Tyr Arg Pro Arg Gly Leu Asn Gly Leu Gly Leu Tyr Ile
219 305          310          315          320
221 Leu Glu Leu Glu Gly Leu Ala Ser Pro Met Glu Thr Pro Arg Val Ala
222          325          330          335
224 Leu Ala Ser Pro Pro Arg Ser Glu Arg Ser Glu Arg Gly Leu Ala Leu
225          340          345          350
227 Ala Thr Tyr Arg Gly Leu Met Glu Thr Pro Arg Ser Glu Arg Gly Leu
228          355          360          365
230 Gly Leu Gly Leu Tyr Thr Tyr Arg Gly Leu Asn Ala Ser Pro Thr Tyr
231          370          375          380
233 Arg Gly Leu Pro Arg Gly Leu Ala Leu Ala
234 385          390
237 <210> SEQ ID NO: 6
238 <211> LENGTH: 362
239 <212> TYPE: PRT
240 <213> ORGANISM: Bos taurus
241 <400> SEQUENCE: 6
243 Met Glu Thr Ala Ser Pro Val Ala Leu Pro His Glu Met Glu Thr Leu
244 1 5 10 15
246 Tyr Ser Gly Leu Tyr Leu Glu Ser Glu Arg Met Glu Thr Ala Leu Ala
247 20 25 30
249 Leu Tyr Ser Gly Leu Gly Leu Tyr Val Ala Leu Val Ala Leu Ala Leu
250 35 40 45
252 Ala Ala Leu Ala Ala Leu Ala Gly Leu Leu Tyr Ser Thr His Arg Leu
253 50 55 60
255 Tyr Ser Gly Leu Asn Gly Leu Tyr Val Ala Leu Thr His Arg Gly Leu
256 65 70 75 80
258 Ala Leu Ala Ala Leu Ala Gly Leu Leu Tyr Ser Thr His Arg Leu Tyr
259 85 90 95
261 Ser Gly Leu Gly Leu Tyr Val Ala Leu Leu Glu Thr Tyr Arg Val Ala
262 100 105 110
264 Leu Gly Leu Tyr Ser Glu Arg Leu Tyr Ser Thr His Arg Leu Tyr Ser
265 115 120 125
267 Gly Leu Gly Leu Tyr Val Ala Leu Val Ala Leu Gly Leu Asn Gly Leu
268 130 135 140
270 Tyr Val Ala Leu Ala Leu Ala Ser Glu Arg Val Ala Leu Ala Leu Ala
271 145 150 155 160
273 Gly Leu Leu Tyr Ser Thr His Arg Leu Tyr Ser Gly Leu Gly Leu Asn
274 165 170 175
276 Ala Leu Ala Ser Glu Arg His Ile Ser Leu Glu Gly Leu Tyr Gly Leu
277 180 185 190
279 Tyr Ala Leu Ala Val Ala Leu Pro His Glu Ser Glu Arg Gly Leu Tyr
280 195 200 205
282 Ala Leu Ala Gly Leu Tyr Ala Ser Asn Ile Leu Glu Ala Leu Ala Ala

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```

283      210      215      220
285 Leu Ala Ala Leu Ala Thr His Arg Gly Leu Tyr Leu Glu Val Ala Leu
286 225      230      235      240
288 Leu Tyr Ser Leu Tyr Ser Gly Leu Gly Leu Pro His Glu Pro Arg Thr
289      245      250      255
291 His Arg Ala Ser Pro Leu Glu Leu Tyr Ser Pro Arg Gly Leu Gly Leu
292      260      265      270
294 Val Ala Leu Ala Leu Ala Gly Leu Asn Gly Leu Ala Leu Ala Ala Leu
295      275      280      285
297 Ala Gly Leu Gly Leu Pro Arg Leu Glu Ile Leu Glu Gly Leu Pro Arg
298      290      295      300
300 Leu Glu Met Glu Thr Gly Leu Pro Arg Gly Leu Gly Leu Tyr Gly Leu
301 305      310      315      320
303 Ser Glu Arg Thr Tyr Arg Gly Leu Gly Leu Gly Leu Asn Pro Arg Gly
304      325      330      335
306 Leu Asn Gly Leu Gly Leu Thr Tyr Arg Gly Leu Asn Gly Leu Thr Tyr
307      340      345      350
309 Arg Gly Leu Pro Arg Gly Leu Ala Leu Ala
310      355      360
313 <210> SEQ ID NO: 7
314 <211> LENGTH: 399
315 <212> TYPE: PRI
316 <213> ORGANISM: Serinus canaria
318 <400> SEQUENCE: 7
319 Met Glu Thr Ala Ser Pro Val Ala Leu Pro His Glu Met Glu Thr Leu
320 1      5      10      15
322 Tyr Ser Gly Leu Tyr Leu Glu Ser Glu Arg Leu Tyr Ser Ala Leu Ala
323      20      25      30
325 Leu Tyr Ser Gly Leu Val Ala Leu Val Ala Leu Ala Leu Ala Ala Leu
326      35      40      45
328 Ala Ala Leu Ala Gly Leu Leu Tyr Ser Thr His Arg Leu Tyr Ser Gly
329      50      55      60
331 Leu Asn Gly Leu Tyr Val Ala Leu Ala Leu Ala Gly Leu Ala Leu Ala
332      65      70      75      80
334 Ala Leu Ala Gly Leu Tyr Leu Tyr Ser Thr His Arg Leu Tyr Ser Gly
335      85      90      95
337 Leu Gly Leu Tyr Val Ala Leu Leu Glu Thr Tyr Arg Val Ala Leu Gly
338      100      105      110
340 Leu Tyr Ser Glu Arg Ala Arg Gly Thr His Arg Leu Tyr Ser Gly Leu
341      115      120      125
343 Gly Leu Tyr Val Ala Leu Val Ala Leu His Ile Ser Gly Leu Tyr Val
344      130      135      140
346 Ala Leu Thr His Arg Thr His Arg Val Ala Leu Ala Leu Ala Gly Leu
347 145      150      155      160
349 Leu Tyr Ser Thr His Arg Leu Tyr Ser Gly Leu Gly Leu Asn Val Ala
350      165      170      175
352 Leu Ser Glu Arg Ala Ser Asn Val Ala Leu Gly Leu Tyr Gly Leu Tyr
353      180      185      190
355 Ala Leu Ala Val Ala Leu Val Ala Leu Thr His Arg Gly Leu Tyr Val

```

Use of n and - or Xaa has been detected in the
Sequence Listing. Review the Sequence Listing
to ensure a corresponding explanation is present
in the <220> to <223> fields of each sequence
listing n or Xaa

VERIFICATION SUMMARY

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TIME: 13:28:33

Input Set : A:\164334.app

Output Set: N:\CRF3\02272002\I446628.raw

L:44 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:681 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11
L:682 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11
L:683 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11
L:684 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11
L:687 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11
L:689 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11
L:690 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11
L:691 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11
L:694 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11
L:699 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11
L:701 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11
L:708 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11
L:710 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11
L:713 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11
L:714 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11
L:715 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11
L:741 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:922 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13
L:923 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13
L:924 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13
L:925 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13
L:926 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13
L:989 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14
L:990 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14
L:992 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14
L:1002 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14
L:1003 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14
L:1006 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14
L:1042 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15
L:1043 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15
L:1065 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16
L:1069 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16
L:1087 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17
L:1117 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18
L:1190 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19
L:1192 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19
L:1193 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19
L:1202 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19
L:1207 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19
L:1209 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19
L:1210 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19